

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE
in its capacity as elected Office

Date of mailing (day/month/year) 03 November 2000 (03.11.00)	
International application No. PCT/SG99/00016	Applicant's or agent's file reference GM/AY/R33-64
International filing date (day/month/year) 10 March 1999 (10.03.99)	Priority date (day/month/year)
Applicant JIAO, Gai-Li et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
06 October 2000 (06.10.00)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Zakaria EL KHODARY Telephone No.: (41-22) 338.83.38
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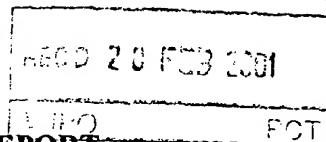
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PATENT COOPERATION TREATY
PCT
INTERNATIONAL PRELIMINARY EXAMINATION REPORT



(PCT Article 36 and Rule 70)

Applicant's or agent's file reference GM/MC/R33-64	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> FOR FURTHER ACTION </div> <div style="width: 55%;"> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416). </div> </div>
International Application No. PCT/SG99/00016	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> International Filing Date (<i>day/month/year</i>) 10 March 1999 </div> <div style="width: 55%;"> Priority Date (<i>day/month/year</i>) <div style="border: 1px solid black; padding: 2px;">10 March 1999</div> </div> </div>
International Patent Classification (IPC) or national classification and IPC Int. Cl. ⁷ A01H 4/00, C12N 15/82	
Applicant INSTITUTE OF MOLECULAR AGROBIOLOGY et al	

1.	This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.																								
2.	This REPORT consists of a total of 3 sheets, including this cover sheet. <input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of sheet(s).																								
3. This report contains indications relating to the following items: <table style="width: 100%; margin-top: 10px;"> <tr> <td style="width: 5%;">I</td> <td style="width: 5%;"><input checked="" type="checkbox"/></td> <td>Basis of the report</td> </tr> <tr> <td>II</td> <td><input type="checkbox"/></td> <td>Priority</td> </tr> <tr> <td>III</td> <td><input type="checkbox"/></td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td>IV</td> <td><input type="checkbox"/></td> <td>Lack of unity of invention</td> </tr> <tr> <td>V</td> <td><input checked="" type="checkbox"/></td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td>VI</td> <td><input type="checkbox"/></td> <td>Certain documents cited</td> </tr> <tr> <td>VII</td> <td><input type="checkbox"/></td> <td>Certain defects in the international application</td> </tr> <tr> <td>VIII</td> <td><input type="checkbox"/></td> <td>Certain observations on the international application</td> </tr> </table>		I	<input checked="" type="checkbox"/>	Basis of the report	II	<input type="checkbox"/>	Priority	III	<input type="checkbox"/>	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	IV	<input type="checkbox"/>	Lack of unity of invention	V	<input checked="" type="checkbox"/>	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	VI	<input type="checkbox"/>	Certain documents cited	VII	<input type="checkbox"/>	Certain defects in the international application	VIII	<input type="checkbox"/>	Certain observations on the international application
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VIII	<input type="checkbox"/>	Certain observations on the international application																							

Date of submission of the demand 9 October 2000	Date of completion of the report 2 February 2001
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer PHILIPPA WYRDEMAN Telephone No. (02) 6283 2554

I. Basis of the report1. With regard to the **elements** of the international application:*☒ the international application as originally filed.☐ the description, pages , as originally filed,
pages , filed with the demand,
pages , received on with the letter of☐ the claims, pages , as originally filed,
pages , as amended (together with any statement) under Article 19,
pages , filed with the demand,☐ the drawings, pages , as originally filed,
pages , filed with the demand,
pages , received on with the letter of☐ the sequence listing part of the description:
pages , as originally filed
pages , filed with the demand
pages , received on with the letter of2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, was on the basis of the sequence listing:☐ contained in the international application in written form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished4. ☐ The amendments have resulted in the cancellation of:☐ the description, pages☐ the claims, Nos.☐ the drawings, sheets/fig.5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims 2-30	YES
	Claims 1	NO
Inventive step (IS)	Claims None	YES
	Claims 1-30	NO
Industrial applicability (IA)	Claims 1-30	YES
	Claims None	NO

2. Citations and explanations (Rule 70.7)

The following documents are referred to:

D1. WO 97/12512 (CALGENE) 10 April

Novelty (N):

Claim 1 lacks novelty in light of D1. D1 discusses obtaining explants from various plant tissues including root and further teaches the use of agrobacterium to create transgenic cotton plants using these.

Inventive Step (IS):

Claims 2-30 lack inventive step in light of D1 because the differences between the methods outlined in D1 and the current claims do not constitute inventive subject matter but only standard alternatives available to the skilled worker.

Industrial Applicability (IA):

The claimed subject matter is considered industrially applicable.

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference GM/AY/R33-64	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/SG 99/00016	International filing date (day/month/year) 10/03/1999	(Earliest) Priority Date (day/month/year)
Applicant INSTITUTE OF MOLECULAR AGROBIOLOGY et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (see Box II).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☐ None of the figures.

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12N15/82 A01H4/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C12N A01H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	DATABASE AGRICOLA 'Online! AN 92:20667 DN IND92003356, KUO, C.C., ET AL.: "Plant regeneration from root-derived callus of Gossypium hirsutum L" XP002126090 abstract & PROCEEDINGS - BELTWISE COTTON CONFERENCES, 1989. (BOOK 2) P. 638-640. PUBLISHER: MEMPHIS, TENN. : NATIONAL COTTON COUNCIL OF AMERICA., -----	1-7, 14-30
Y	WO 97 12512 A (CALGENE INC) 10 April 1997 (1997-04-10) page 11, line 7 - line 24 page 14, line 12 -page 15, line 2 ----- -/-	1-7, 14-30

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
 "E" earlier document but published on or after the international filing date
 "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
 "O" document referring to an oral disclosure, use, exhibition or other means
 "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
 "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
 "&" document member of the same patent family

Date of the actual completion of the international search

17 December 1999

Date of mailing of the international search report

11/01/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
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Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Maddox, A

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	DATABASE CAB 'Online! CAB INTERNATIONAL, WALLINGFORD, OXON, GB AN 96:45438, CHEN, S., ET AL.: "Studies on the physiological effect of ABT No.4 on cotton" XP002126091 abstract & ACTA AGRICULTURAE SHANGHAI, vol. 10, no. 1, 1994, pages 73-77,	2-7
A	WO 98 15622 A (DEVER JANE GAY KVETON ;TROLINDER NORMA L (US); KOONCE LINDA KAY TR) 16 April 1998 (1998-04-16) page 6, line 9 - line 39 page 12, line 27 - line 38; examples 2,3 page 10, line 21 - line 30	1-30
A	DATABASE BIOSIS 'Online! BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US AN 1991:426929, LU, Z-X, ET AL.: "Study on tissue and protoplast culture of wild cotton Gossypium-davidsonii" XP002126111 abstract & ACTA BOT SIN, vol. 33, no. 2, 1991, pages 98-103,	1-30
A	FIROOZABADY ET AL: "Transformation of cotton (Gossypium hirsutum L.) by Agrobacterium tumefaciens and regeneration of transgenic plants" PLANT MOLECULAR BIOLOGY, NL, NIJHOFF PUBLISHERS, DORDRECHT, vol. 10, 1997, page 105-116 XP002094283 ISSN: 0167-4412 page 107 -page 108	14-19
A	TROLINDER N L ET AL: "SOMATIC EMBRYOGENESIS AND PLANT REGENERATION IN COTTON (GOSSYPIMUM HIRSUTUM L.)" PLANT CELL REPORTS, DE, SPRINGER VERLAG, vol. 6, no. 3, 1987, page 231-234 XP000618864 ISSN: 0721-7714 the whole document	20-25
A	EP 0 270 355 A (AGRACETUS) 8 June 1988 (1988-06-08) the whole document	20-25
	— -/-	

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DATABASE CAB 'Online! CAB INTERNATIONAL, WALLINGFORD, OXON, GB AN 1998:72033, HUI, L., ET AL.: "Studies on the application of multi-effect-triazole in anther culture in wheat" XP002126092 abstract & ACTA AGRONOMICA SINICA, vol. 23, no. 2, 1997, pages 220-225,	2-13
A	DATABASE CHEMABS 'Online! CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US AN 117:128291, SHANKLA, A., ET AL.: "Influence of growth regulators on somatic embryogenesis, plantlet regeneration, and post-transplant survival of Echinochloa frumentacea" XP002126129 abstract & PLANT CELL REP. (1992), 11(7), 368-71,	8-13
A	DATABASE BIOSIS 'Online! BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, USq AN 1991:22373, ZHAO, C-Z., ET AL.: "Effect of MET on immature embryo callus induction differentiation and hardening of plants" XP002126130 abstract & ACTA BOT SIN, vol. 32, no. 5, 1990, pages 407-409,	8-13
A	DATABASE CAB 'Online! CAB INTERNATIONAL, WALLINGFORD, OXON, GB AN 95:112675, PAN, X.Y., ET AL.: "A study on the effect of MET on regulating the growth of plantlet from rice pollen" XP002126093 abstract & ACTA AGRICULTURAE UNIVERSITATIS JIANGXIENSIS, vol. 15, no. 3, 1993, pages 225-229,	2-13
A	EP 0 317 511 A (CIBA GEIGY AG) 24 May 1989 (1989-05-24) page 31 -page 37	14-30
A	WO 89 05344 A (PHYTOGEN) 15 June 1989 (1989-06-15) the whole document	14-30
	-/-	

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 672 035 A (DAVIDONIS GAYLE H ET AL) 9 June 1987 (1987-06-09) cited in the application the whole document	28-30
A	VALVEKENS D ET AL: "AGROBACTERIUM TUMEFACIENS-MEDIATED TRANSFORMATION OF ARABIDOPSIS THALIANA ROOT EXPLANTS BY USING KANAMYCIN SELECTION" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, US, NATIONAL ACADEMY OF SCIENCE. WASHINGTON, vol. 85, August 1988 (1988-08), page 5536-5540 XP002910776 ISSN: 0027-8424 the whole document	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/SG 99/00016

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9712512	A	10-04-1997	US 5846797 A AU 7257996 A CN 1198655 A EP 0910239 A	08-12-1998 28-04-1997 11-11-1998 28-04-1999
WO 9815622	A	16-04-1998	AU 4981297 A	05-05-1998
EP 0270355	A	08-06-1988	US 5004863 A AT 102999 T DE 3789359 D DE 3789359 T ES 2052582 T IN 168950 A US 5608142 A US 5159135 A	02-04-1991 15-04-1994 21-04-1994 06-10-1994 16-07-1994 20-07-1991 04-03-1997 27-10-1992
EP 0317511	A	24-05-1989	AU 616444 B AU 2568188 A JP 1160480 A RU 2024613 C	31-10-1991 18-05-1989 23-06-1989 15-12-1994
WO 8905344	A	15-06-1989	AT 178353 T AU 632038 B AU 2926689 A AU 668915 B AU 3528493 A AU 708250 B AU 6424796 A CA 1337406 A CA 1335799 A CN 1034298 A, B CN 1070309 A, B CN 1070310 A, B DE 3856319 D DE 3856319 T EP 0344302 A EP 0899341 A ES 2016428 A GR 88100761 A, B IL 88266 A IL 104845 A JP 7000065 A JP 8004434 B JP 8022196 B JP 2502253 T KR 9710757 B PT 89034 A, B US 5856177 A US 5834292 A US 5859321 A US 5874662 A US 5695999 A US 5583036 A US 5244802 A	15-04-1999 17-12-1992 05-07-1989 23-05-1996 20-05-1993 29-07-1999 21-11-1996 24-10-1995 06-06-1995 02-08-1989 31-03-1993 31-03-1993 06-05-1999 15-07-1999 06-12-1989 03-03-1999 01-11-1990 31-03-1994 10-03-1998 16-08-1998 06-01-1995 24-01-1996 06-03-1996 26-07-1990 30-06-1997 30-11-1989 05-01-1999 10-11-1998 12-01-1999 23-02-1999 09-12-1997 10-12-1996 14-09-1993
US 4672035	A	09-06-1987	NONE	